



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/751,730

01/06/2004

Masaya Kimura

826.1916

1509

21171 7590 09/11/2008

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

SOL, ANTHONY M

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

09/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/751,730	Applicant(s) KIMURA ET AL.	
	Examiner ANTHONY SOL	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-11,13,17 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 is/are allowed.
- 6) ☒ Claim(s) 1,3-11,17 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Applicant's Amendment filed 6/13/2008 is acknowledged.
- Claim 1 has been amended.
- Claims 1, 3-11, 13, 17, 20 are now pending.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 8, 9, and 11 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Identifier to a user session being a unique number and set as the source port number of the mobile terminal (pg. 18, lines 12-17; pg. 20, line 22 – pg. 21, line 4; pg. 84, lines 10-17; pg. 86, lines 15-22) and setting the unique source port number as a source port number of a packet header (pg. 17, lines 15-20; pg. 20, 7-12; pg. 50, lines 17-25 and fig. 22; pg. 52, line 12 – pg. 53, line 15 and fig. 17, step s33; pg. 54, lines 6-9 and fig. 19, step s44; pg. 56, lines 4-9; pg. 77, lines 14-24 and fig. 22; pg. 84, lines 10-17; pg. 86 lines 3-9; pg. 86, line 23 – pg. 87, line 12; pg. 90, lines 1-2) is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The description in the specification at pages and figures cited above demonstrate that the above feature(s) are considered essential by the Applicant.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-5, 7, 10, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pub. No. US 2001/0055285 A1 ("Tomoike") in view of Pub. No. US 2008/0201488 A1 ("Kenner").

Regarding claims 1, 7, 10, and 20,

Tomoike shows in fig. 1A a first network unit 21 which is connected to the mobile terminal 12 and has a plurality of input/output points 13, 14 to and from the service providing servers 19 (note that only one server is shown, but of course a plurality of servers are available); a plurality of first communications distribution units 16, 17 (claim 10 - load balancer) respectively connected to the plurality of input/output points; a second network unit, the network connecting 17 & 18, connected to said plurality of first communications distribution units 16, 17; a third network unit 20 connected to the plurality of service providing servers 19; and a plurality of second communications distribution units 18 which are connected between said second network unit, the network connecting 17 & 18 and said third network unit 20, for distributing a series of communications between the mobile terminal 12 and any of the plurality of service

providing servers 19 to any of the plurality of service providing servers, where said first communications distribution unit 16, 17 distributes said series of communications between said mobile terminal 12 and any of said plurality of service providing servers 19 to any of said plurality of second communications distribution units 18 through said second network unit, the network connecting 17 & 18 (see fig. 1A and para. 60, *The mobile terminal 12 has a communication device for accessing a mobile network 21 via the RAN 13-1 or 13-2, and the MMS 14-1 or 14-2, and **for communicating with a desired communication partner**, where the mobile network 21 is controlled by the SCP 16. If the communication partner is the contents server 19 on the Internet 20, **the mobile terminal 12 accesses one of the GMMSs 17-1 to 17-m and one of the proxy gateways 18-1 to 18-n** according to the control by the SCP 16, and obtains data stored in the contents server 19; Alternatively, para. 72, In the selection of the proxy gateway, the SCP 16 **selects any one of the proxy gateways 18-1 to 18-n**, from which the SCP has not received a load data communicating signal), wherein each of said plurality of first communications distribution units 16, 17 comprises a same storage contents of distribution destination storage unit storing an address of any of said plurality of second communications distribution units 18 to which a series of communications are to be distributed (para. 65, *When one of the GMMSs 17-1 to 17-m receives the **address** of the proxy gateways 18-1 to 18-n, the GMMS performs a process of connecting the selected proxy gateway and the mobile terminal*) corresponding to an identifier of a session (para. 63, *the session is established between the mobile terminal and the**

selected proxy gateway) as the series of communications between the mobile terminal 12 and the service providing servers 19 (see paras. 57-68).

Tomoike does not disclose distributing a series of communications to any of the plurality of service providing servers.

Kenner discloses that **the user's IP address is then determined by the server through traditional means, as HTTP** (HyperText Transport Protocol) requests typically include information on the requester's address. **The redirection server then maps the user's IP address to an optimum delivery site** located in the look-up table and forwards the delivery site address to the user. The user's client program 36 or the redirection server then redirects the file request so that the file is delivered from the optimum delivery site (para. 127). Kenner further discloses that the look-up table can be modified so that the **redirection server will point users to alternative delivery sites**. Thus, it is possible that on two back-to-back requests for the same file, a user may be directed to two different delivery sites (para. 142).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify the gateway of Tomoike to point users to alternative delivery sites (claimed service providing servers) as taught by Kenner. One skilled in the art would have been motivated to make the combination in order to perform load balancing with respect to file requests (Kenner, para. 142).

Regarding claims 3 and 4,

Tomoike does not disclose that the plurality of service providing servers form a plurality of groups each being configured by servers providing same service, that the mobile terminal specifies a representative address for each of the plurality of groups to communicate with service providing servers, and that said second communication distribution unit distributes the series of communications to any of the service providing servers in a group specified by the representative address.

Kenner discloses that Internet content providers sometimes spread popular content around the Internet on various servers or delivery sites known as "mirror sites." Each mirror site contains information that is essentially identical to that of the original site (para. 20).

Kenner further discloses that the user's IP address is then determined by the server through traditional means, as HTTP (HyperText Transport Protocol) requests typically include information on the requester's address. The redirection server then maps the user's IP address to an optimum delivery site located in the look-up table and **forwards the delivery site address to the user.** The redirection server then redirects the file request so that the file is delivered from the optimum delivery site. (para. 127). Kenner further discloses that the look-up table can be modified so that the redirection server will point users to **alternative delivery sites.** Thus, it is possible that on two back-to-back requests for the same file, a user may be directed to two different delivery sites (para. 142). In regards to claim 4's limitation of changing the representative address for a change of a service, the same mechanism dealing with claim 3 rejection would apply to claim 4.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify the gateway of Tomoike to use an IP address of a delivery site to point users to alternative delivery sites (claimed service providing servers) to deliver the same service as taught by Kenner. One skilled in the art would have been motivated to make the combination in order to perform load balancing with respect to file requests (Kenner, para. 142).

Regarding claim 5,

Tomoike discloses that when the GMMS 17-1 receives the GW address response signal from the SCP 16, the GMMS 17-1 performs a process of registering the personal computer 11 and the mobile terminal 12 (claimed authentication), and sends the personal computer 11 and the mobile terminal 12 an activation response signal in which the GMMS 17-1 stores the GW address (i.e., the address of the relevant gateway) previously received from the SCP 16 (para. 83).

5. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomoike in view of Kenner, and further in view of Pub. No. US 2005/0027506 A1 ("Kerr").

Regarding claim 6,

Tomoike shows in fig. 1, a content server 19 (claimed external server) which is accessed through the Internet, which inherently is not limited to a mobile device communications network.

Tomoike does not disclose an accounting information generation unit generating accounting information about a service received by the mobile terminal from the service providing servers or a server external to the mobile device communication system.

Kerr discloses treatment of packets 150 in the message flow 160 including accounting such that the routing device 140 creates an accounting record for the message flow 160 (para. 36).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify mobile communication system and gateway selection method of Tomoike to include creating an accounting record as taught by Kerr. One skilled in the art would have been motivated to make the combination so that so that the user can be accurately charged for the use of content and network usage (Kerr, para. 46).

Regarding claim 17,

Tomoike discloses retrieving from a packet received from the load balancer a destination address and a source address of the packet (source address and destination addresses are inherent in a packet) when a series of communications between the mobile terminal 12 and the service providing server 19 start.

Tomoike does not disclose setting the addresses in an accounting record, incrementing a number of packets of an accounting record each time a packet is received from the load balancer until the series of communications terminate, retrieving a packet length from the received packet, and adding the packet length to the

packet length of the accounting record, and setting again the source address of the accounting record into identification information about a user of the mobile terminal, and the destination address into information about the service providing server.

Kerr discloses treatment of packets 150 in the message flow 160 including accounting such that the routing device 140 creates an accounting record for the message flow 160 (para. 36). Kerr further discloses that the message flow may be identified responsive to factors including packet length (para. 25). Kerr still further discloses that because the routing device 140 is able to associate each packet 150 with a particular message flow 160 and to associate each message flow 160 with particular network-layer source and destination addresses, the routing device 140 is able to associate network usage with particular workstations (and therefore with particular users) or with particular services available on the network. This can be used for accounting purposes (para. 46).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify the common load balancing system as disclosed by the applicant as prior art to include the ability to access servers external to the mobile device communications system as taught by Tomoike and to include accounting record feature as taught by Kerr. One skilled in the art would have been motivated to make the combination so that the user can be accurately charged for the use of content and network usage (Kerr, para. 46).

Allowable Subject Matter

6. Claim 13 is allowed.
7. Claims 8, 9, and 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 6/13/2008 have been fully considered but they are not persuasive.
 - The Applicant argues in pg. 9 of the Remarks that Tomoike does not disclose that the address of any of the second communications distribution units to which a series of communications are distributed is stored corresponding to the identifier of the session as a series of communications. The Applicant further argues that Tomoike selects a specific gateway only if this specific gateway always has the smallest load during a communications connection.
 - The Examiner respectfully disagrees. Tomoike discloses that when one of the GMMSs 17-1 to 17-m (claimed first communications distribution units) receives the **address** of the proxy gateways 18-1 to 18-n (claimed second communications distribution units), the GMMS performs a process of connecting the selected proxy gateway and the mobile terminal (para. 65). Tomoike further discloses that a session is established between the

mobile terminal and the selected proxy gateway (para. 63). As for the contention that Tomoike selects a specific gateway only if this specific gateway always has the smallest load, Tomoike also discloses an embodiment of the invention in which the SCP 16 selects any one of the proxy gateways 18-1 to 18-n, from which the SCP has not received a load data communicating signal (para. 72). Therefore, the selection of the gateway does not have to depend on having the smallest load.

- The Applicant argues on bottom of pg. 9 to top of pg. 10 that “according to an embodiment of the present invention, a plurality of first communication distribution units respectively comprise the same storage contents of distribution a [sic] destination storage unit. By contrast Tomoike does not teach ... gateways that comprise a distribution destination storage unit.
- The above statement does not make sense. On the one hand, the Applicant asserts that a plurality of first communications distribution units (for example, load balancing units 25 of fig. 2) comprise distribution destination storage unit. On the other hand, the Applicant alleges Tomoike does not disclose gateways (i.e., second communications distribution units) that comprise a distribution destination storage unit. It is not clear what the Applicant is alleging Tomoike fails to disclose - first communications distribution units (load balancing unit) comprising a distribution destination storage unit or gateways (second communications

distribution units) comprising a distribution destination storage unit. As best understood, it is the first communications distribution units that comprise a distribution destination storage unit that stores an address of a second communications distribution units (for example gateway).

Likewise, Tomoike discloses that when the SCP 16 receives the GW address request signal, the SCP 16 ...selects, for example, the proxy gateway 18-1 (claimed second communications distribution unit), and informs the GMMS 17-1 of the selected result by sending a GW address response signal to the GMMS 17-1. When the GMMS 17-1 receives the GW address response signal from the SCP 16, the GMMS 17-1 performs a process of registering the personal computer 11 and the mobile terminal 12, and sends the personal computer 11 and the mobile terminal 12 an activation response signal in which the **GMMS 17-1 (claimed first communications distribution unit) stores the GW address** (i.e., the address of the relevant gateway) previously received from the SCP 16. (paras. 82-83).

- The Applicant argues on pg. 11 regarding claim 17 that the combination of art relied on by the Examiner do not teach operations including performing an accounting process at a gateway located between a load balancer and a service providing provider.

- The Examiner respectfully disagrees. Tomoike shows in fig. 1A a gateway 18 located between a load balancer, SCP 16 and GMMS 17, and a service providing provider 19. As for the performance of the accounting process, Kerr discloses treatment of packets 150 in the message flow 160 including accounting such that the routing device 140 creates an accounting record for the message flow 160 (para. 36). Please refer to the revised USC 103 rejection to claim 17 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY SOL whose telephone number is (571)272-5949. The examiner can normally be reached on M-F 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/751,730
Art Unit: 2619

Page 14

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Anthony Sol/
Examiner, Art Unit 2619
9/11/2008

/Wing F. Chan/
Supervisory Patent Examiner, Art Unit 2619
9/10/08